Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A hydrogen-absorbing storage material ~~containing~~ comprising:

hydrogen-absorbing alloy particles;

a group VIII transition metal, wherein the group VIII transition metal is mechanically alloyed with the hydrogen-absorbing alloy particles at a ratio of 0.25% - 10 wt% transition metal to alloy particles to produce mechanically alloyed storage material particles, the hydrogen-absorbing alloy particles having a diameter between approximately 1 μm and 10 μm and transition metal particles disposed at least on the surface of the hydrogen-absorbing alloy particles and having a diameter of between approximately 0.1 μm and 1.0 μm; and

a binding agent which at least partially covers the mechanically alloyed storage material particles so as to effect firm binding between said mechanically alloyed storage material particles while allowing free passage of hydrogen in and out of the mechanically alloyed storage material particles~~.~~, said binding agent being present in an amount less than 1 weight percent of said mechanically alloyed storage material particles.

Claims 2-3 (Cancelled)

Claim 4 (Previously Presented): The storage material of claim 1, wherein the hydrogen-absorbing alloy particles comprise AB_x alloys, A being at least one element selected from the group consisting of La, Ce, Pr, Nd, Ca, Y, Zr, and Mischmetal, B being at least one element selected from the group consisting of Ni, Co, Mn, Al, Cu, Fe, B, Sn, Si, Ti, and x having a value between 4.5 and 5.5.

Claim 5 (Previously Presented): The storage material of claim 1, wherein the hydrogen-absorbing alloy particles comprise AB/A_2B alloys, A being at least one element selected from the group consisting of Ti and Mg, and B being at least one element selected from the group consisting of Ni, V, Cr, Zr, Mn, Co, Cu, and Fe.

Claim 6 (Previously Presented): The storage material of claim 1, wherein the hydrogen-absorbing alloy particles comprise AB_2 alloys, A being at least one element selected from the group consisting of Ti, Zr, Hf, Th, Ce and rare earth metals, and B being at least one element selected from the group consisting of Ni, Cr, Mn, V, Fe, Mn and Co.

Claim 7 (Original): The storage material of claim 1, wherein the transition metal particles comprise at least one material selected from the group consisting of Pd, Pt, Ni, Ru, and Re.

Claims 8-9 (Cancelled)

Claim 10 (Previously presented): The material of claim 1, wherein said binding agent is selected from the group consisting of polyethylene oxide (PEO), polyvinylidenefluoride, hydroxypropylmethyl cellulose, ethyl cellulose, organic conductive polymer, PTFE, PVA, acrylic copolymers and sulfonated tetrafluoroethylene copolymers.

Claim 11 (Previously presented): The material of claim 1, and further comprising a solvent added to the binding agent, said solvent selected from the group consisting of water, 1-methyl-2-pyrrolidone, ethanol, methanol, heptane, toluene, carbitol acetate, and terpineol.

Claim 12 (Original): The material of claim 11, wherein said solvent is removed by drying.

Claim 13 (Original): The material of claim 11, wherein said mechanically alloyed storage material particles with the solvent has a low viscosity suitable for screen printing and ink-jet printing applications.

Claim 14 (Original): The material of claim 1, wherein the material retains its hydrogen sorption/desorption effectiveness after exposure to ambient air and water.

Claim 15 (Original): The material of claim 1, wherein the material retains its hydrogen sorption/desorption effectiveness after exposure to aqueous solutions of potassium hydroxide.

Claim 16 (Currently Amended): A process for producing a hydrogen-absorbing storage material, comprising:

preparing a hydrogen-absorbing alloy particles with a diameter of approximately between 1 μm and 10 μm;

adding group VIII transition metal particles having a diameter of approximately between 0.1 μm and 1.0 μm;

mechanically alloying the hydrogen-absorbing alloy particles and the group VIII transition metal particles to form mechanically alloyed hydrogen-absorbing storage material particles; and

adding to the mechanically alloyed hydrogen-absorbing storage material particles a binding agent which at least partially covers the mechanically alloyed hydrogen-absorbing storage material particles so as to effect firm binding between said mechanically alloyed hydrogen-absorbing storage material particles while allowing free passage of hydrogen in and out of the mechanically alloyed hydrogen-absorbing storage material particles~~.~~, said binding agent being present in an amount less than 1 weight percent of said mechanically alloyed storage material particles.

Claim 17 (Cancelled)

Claim 18 (Previously presented): The process of claim 16, wherein the binding agent is selected from the group consisting of polyethylene oxide (PEO), polyvinylidenefluoride, hydroxypropylmethyl cellulose, ethyl cellulose, organic conductive polymer, PTFE, PVA, acrylic copolymers and sulfonated tetrafluoroethylene copolymers.

Claim 19 (Original): The process of claim 16, and further comprising adding to the mechanically alloyed hydrogen-absorbing storage material particles a solvent, making a solution with a sufficiently low viscosity to be suitable for deposition by at least one of thick film printing and ink jet printing.

Claim 20 (Original): The process of claim 19, wherein the solvent is selected from the group consisting of water, 1-methyl-2-pyrrolidone, ethanol, methanol, heptane, toluene, carbitol acetate, and terpineol.

Claim 21 (Cancelled)

Claim 22 (Original): The process of claim 16, wherein the transition metal particles comprise at least one material selected from the group consisting of Pd, Pt, Ni, Ru, and Re.

Claim 23 (Original): A microfabricated fuel cell comprising:

a substrate;

a hydrogen-absorbing storage material disposed in or on said substrate, said hydrogen-absorbing storage material containing hydrogen-absorbing alloy particles and a group VIII transition metal, wherein the group VIII transition metal is mechanically alloyed with the hydrogen-absorbing alloy particles at a ratio of 0.25% - 10 wt% transition metal to alloy particles;

an anode current collector disposed on the hydrogen-absorbing storage material;

an anode catalyst disposed on the anode current collector;

a polymer electrolyte disposed on the anode catalyst;

a cathode catalyst disposed on the polymer electrolyte; and

a cathode current collector disposed on the cathode catalyst.

Claim 24 (Original): The fuel cell of claim 23, wherein the hydrogen-absorbing storage material, the anode current collector, the anode catalyst, the polymer electrolyte, the cathode catalyst, and the cathode current collector are applied by one of screen printing or ink jet printing.

Claim 25 (Original): A microfabricated electronic device comprising an electric power source implemented as the fuel cell of claim 23 and an electronic circuit powered by the fuel cell.